TEXAS MICRO

User's Manual

VP(B/R)-MB
Series Chassis

25712A
January 1998
© Texas Micro Inc.
All Rights Reserved
Printed in USA

Limited Warranty

A. Texas Micro Inc. warrants that the item sold by it hereunder will be free from defects in materials or workmanship, under normal use and service, for a period of 2 years from date of shipment. Said item will meet the specifications in effect at the time of manufacture. Texas Micro's sole obligation under this warranty shall be, at its option, to repair or replace, without charge, any defective component of said item, within a reasonable period of time.

B. Texas Micro Inc. shall not be liable under this warranty for (i) the item that the Buyer alleges to be defective and was repaired or altered by someone other than Texas Micro's designated personnel or authorized representative, unless such repair or alteration was effected pursuant to prior written approval of Texas Micro, or (ii) where the Buyer fails to notify Texas Micro of any alleged defect within the period of warranty, or (iii) where the Buyer fails to return the allegedly defective item to Texas Micro Inc., in Houston, Texas, USA, freight prepaid, or (iv) where the item was altered or damaged in a way which Texas Micro reasonably determines to affect the performance and reliability of the item, or (v) where the item was subject to misuse, neglect, or accident. The rights and remedies granted to the Buyer under this paragraph constitute the Buyer's sole and exclusive remedy against Texas Micro Inc., its officers, agents, and employees, for negligence, inexcusable delay, breach of warranty, express or implied, or any other default relating to the item or Texas Micro's duties to eliminate any errors.

This warranty supersedes any other warranty, whether expressed, implied, or statutory, including but not limited to any warranty for fitness of purpose, merchantability, or freedom from infringement or the like, and any warranty otherwise arising out of any proposal, specifications, or sample. Furthermore, Texas Micro Inc. neither assumes nor authorizes any person to assume for it any other liability.

The software included with this equipment is warranted only in accordance with the terms of its license agreement. Except as warranted in that license agreement, the manufacturer of the software disclaims all warranties and conditions with regard to the software, including all implied warranties and conditions of merchantability, fitness for a particular purpose, title, and non-infringement.

Every effort has been made to ensure that the information provided in this manual is complete and accurate. However, technical inaccuracies or typographical errors may be inadvertently included. Texas Micro assumes no responsibility for any errors that may be contained in this document. Texas Micro makes no promise to update or keep current the information contained in this document. Information in this document, including product specifications, is subject to change without notice.

Any rights not expressly granted herein are reserved.

All tradenames referenced are the service mark, trademark, or registered trademark of the respective manufacturer.

Important

Always use caution when handling or operating the system. Only qualified and experienced electronics service personnel should access the unit's interior. Use extreme caution when installing or removing components. If you have any questions, please contact Texas Micro Technical Support at (800) 627-8700 or (713) 541-8200 Monday through Friday between 7:00 a.m. and 6:00 p.m., Central Time, Continental USA.

A Lire Imperativement

Quand vous manipulez ou utilisez la système, faites preuve en toutes circonstances de la plus grande prudence. Seuls des techniciens électroniciens qualifiés et expérimentés peuvent avoir accès à l'intérieur de la système. Si vous désirez poser des questions complémentaires, n'hésitez pas à prendre contact avec le Département d'assistance technique de Texas Micro au (USA) 1-713-541-8200.

Bitte Zuerst Lesen

Seien Sie immer vorsichtig, wenn Sie mit Ihrem System umgehen oder es bedienen. Nur qualifiziertes, erfahrenes Personal fär Elektronik sollte am Inneren des Gerätes arbeiten. Für Ihre Sicherheit sind Hinweise zur Vorsicht, Win Sie irgenwelche Fragen haben, setzen Sie sich bitte nit der Abteilung fr technische Unterstützung von Texas Micro unter der Rufnummer (USA) 1-713-541-8200 in Verbindung.

Changes or modifications not expressly approved by Texas Micro Inc. could void the product warranty and the user's authority to operate the equipment.

Notice

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at the user's own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Canadian Emissions Notice

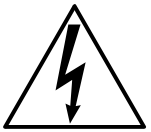
This equipment complies with the Canadian Digital Device Law, Class A.

Document Conventions

Typography

Title Case	Titles of menus, windows, tabs, lists, and groups.
Bold Title Case	Names of menu items, fields, buttons, icons, check boxes, list items, group items, and keystrokes.
UPPER CASE	Acronyms and abbreviations.
Italics	Emphasis.
Sans Serif Type	Items in tables, illustrations, and notations.
`Monospace Type`	Output from a printer or monitor. Graphic items will be displayed as an image.

Symbols

	Caution: indicates an item for special consideration.
	Warning: indicates a hazard that can cause personal injury and/or damage to the equipment.
	**High Voltage**: indicates the presence of a high electrical current that can cause serious personal injury and/or damage to the equipment.
	ESD: indicates sensitive electronic parts that can be damaged by electrostatic discharge (ESD).

Customer Support

Calling Technical Support

Step	Action
1	Have the Texas Micro product model and serial number available.
2	• In the Continental USA, Monday — Friday, 7:00 a.m. — 6:00 p.m., Central Time, dial 1-800-627-8700 in the USA. Outside the USA, dial 713-541-8200 (add long distance/international access codes). • In Europe, Monday through Friday between 8:00 a.m. and 6:00 p.m., dial +31-36-5365595.
3	Upon answer, press for Technical Support.

Returning Products for Service

Step	Action
1	Have the Texas Micro product model and serial number available.
2	• In the Continental USA, Monday — Friday, 7:00 a.m. — 6:00 p.m., Central Time, dial 1-800-627-8700 inside the USA. Outside the USA, dial 713-541-8200 (add long distance/international access codes). • In Europe, Monday through Friday between 8:00 a.m. and 6:00 p.m., dial +31-36-5365595.
3	Upon answer, press for Technical Support.
4	When you are assigned a Returned Goods Authorization (RGA) number from a Technical Support Representative, place it, along with the product serial number, on the packaging materials and correspondence. The factory will be unable to accept delivery without these numbers. **Note:** The factory does not accept RGA's sent freight collect.

Accessing the BBS

Step	Action
1	24 hours a day, 7 days a week, dial 713-541-8250 (add long distance/ international access codes).
2	Set your modem/communications equipment to: Protocol: ANSI Data Bits: 8 Parity: None Stop Bits: 1 **Note:** Refer to your modem and communication software documentation for configuration and operation instructions.
3	When you connect, follow the online instructions to download software.

Using the InfoLine Fax Service

Step	Action
1	24 hours a day, 7 days a week, dial 713-541-8200 or 800-627-8700 (add long distance/international access codes). **Note:** You can use this service *only* with a touch-tone telephone.
2	Upon answer, press 190 for the InfoLine fax service.
3	Follow the instructions to request documents.

Upon receiving your equipment, inspect the packaging, shipping materials, and contents. If damaged, return the equipment to Texas Micro Inc. in the original packaging and shipping materials.
If you are satisfied with your equipment, retain the packaging and shipping materials in case of future need.

Table of Contents

Chapter 1 Operations 1

Front Panel 2
Rear Panel 4
Inside the Chassis 6
Install Drives 8
Install Boards 10
Start-Up 12

Chapter 2 Technical Data 15

Maintenance 16
Specifications 18

List of Figures

1 Front Panel 3
2 Rear Panel 5
3 Internal Components 7
4 Install Drives in the Chassis 9
5 Install Boards 11
6 Start-Up 13
7 Replace the Air Filter 17
8 VP(B/R)-MB Chassis 19

1 Operations

This chapter discusses the primary features of the VP(B/R)-MB Series Chassis.

The topics covered are:

- Front, side panel and rear features
- Identifying components in the chassis
- Start-up

Front Panel

Overview

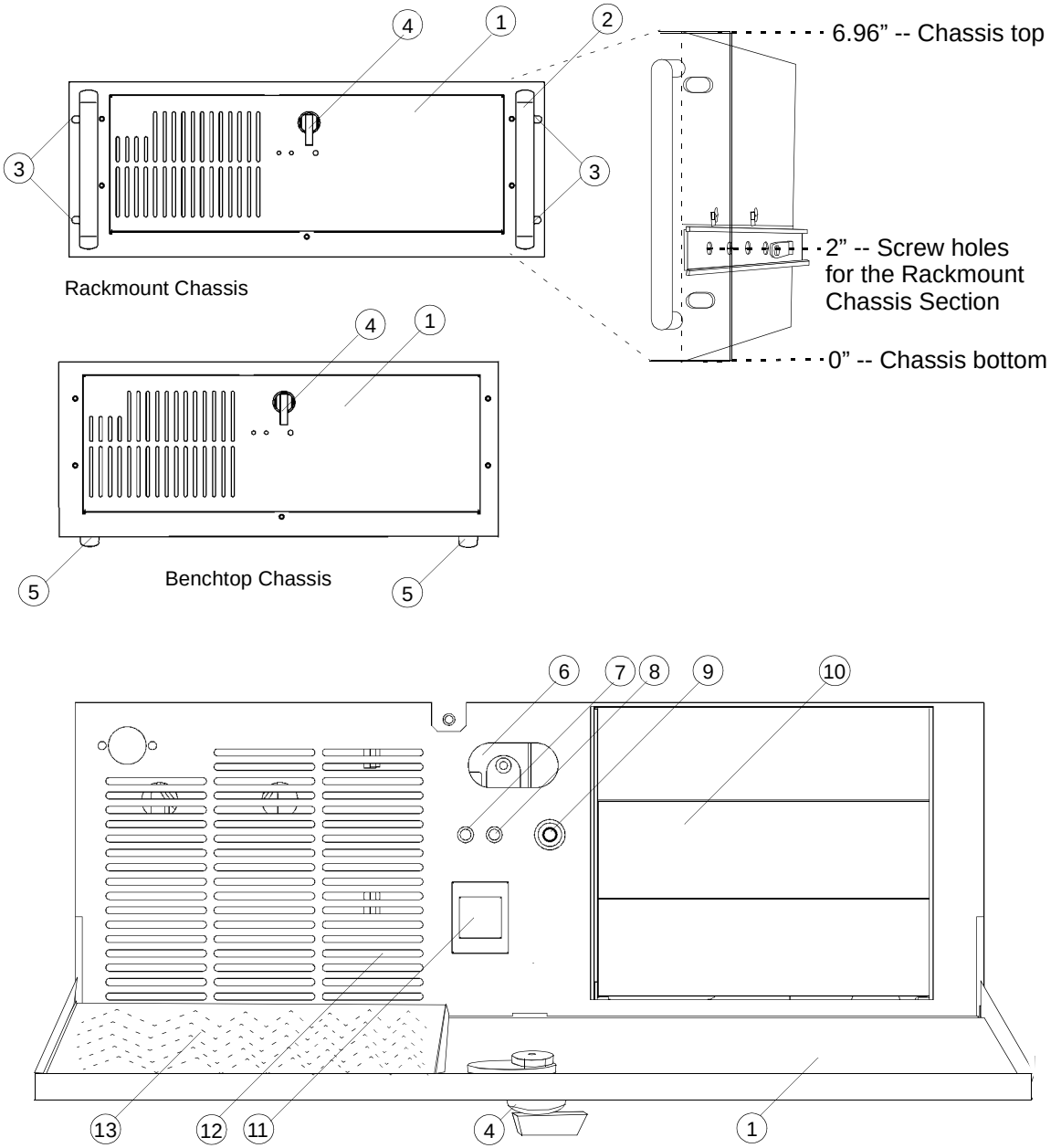
This section provides a list of front and side panels features common to both Rackmount and Benchtop models (figure 1xref).

Front and Side Panel Features

The features of the front and side panels are listed below.

Item	Description
1	Door
2	Rackmount Handles
3	Rack Mounting Holes
4	Door latch
5	Benchtop Feet
6	Door Latch Hole
7	Hard Drive Activity LED (Amber)
8	Power LED (Green)
9	Reset Button
10	5.25” Drive Bays
11	Power Switch
12	Inlet Vent for the Cooling Fan
13	Air Filter

Figure 1 Front Panel



Rear Panel

Overview

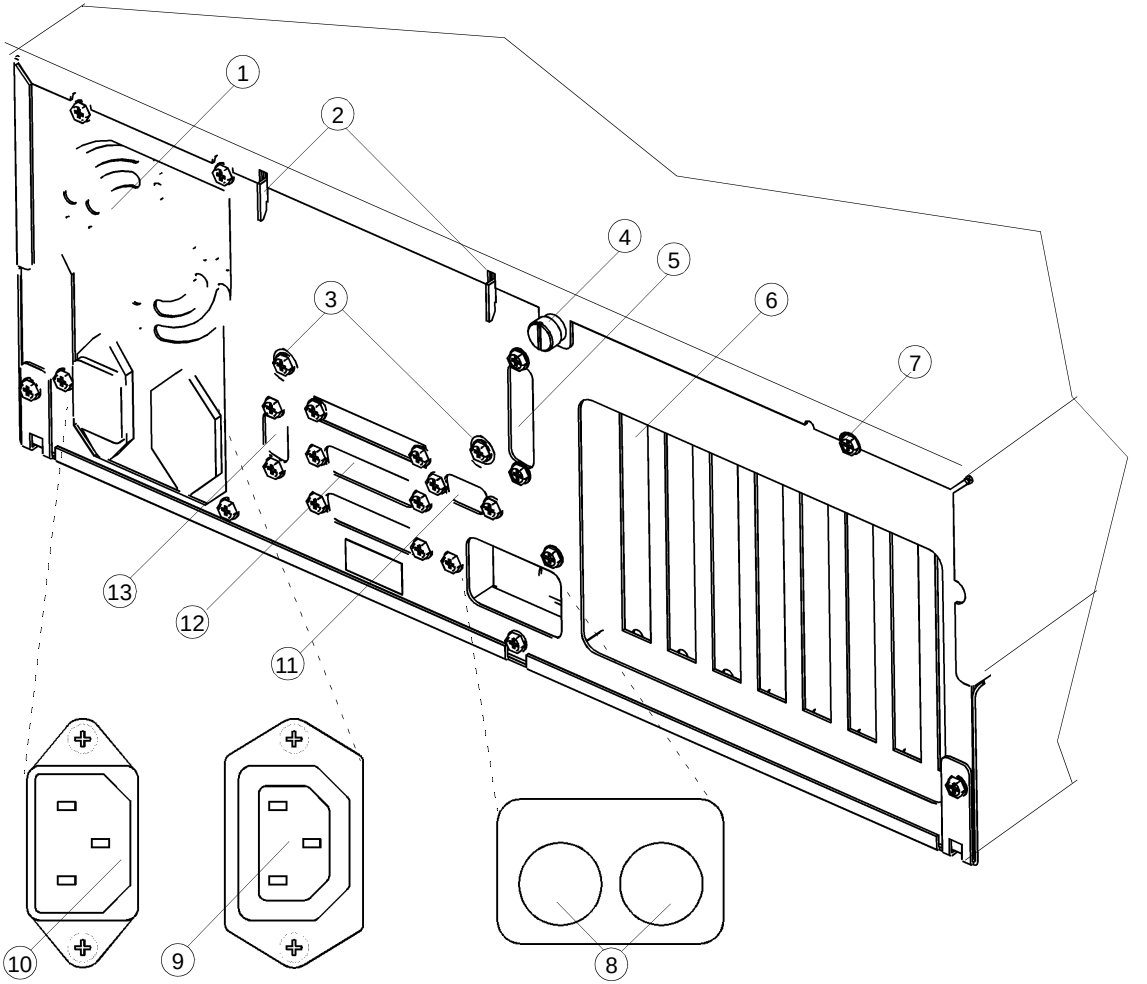
This section provides a list of the Rear Panel features.

Rear Panel

The Rear Panel features are listed below.

#	Description
1	Power Supply Exhaust Fan
2	3.5” Media Cage Supports
3	3.5” Media Cage Screws
4	Top Cover thumbscrew (secures Top Cover to the Rear Panel)
5	Parallel Port Slot
6	I/O Slot 8
7	Screw for Chassis Stiffening Bar
8	Keyboard/Mouse Connector Slots
9	AC Power Output
10	AC Power Input
11	Serial Port Slot 2
12	Expansion Slots
13	Serial Port Slot 1

Figure 2 Rear Panel



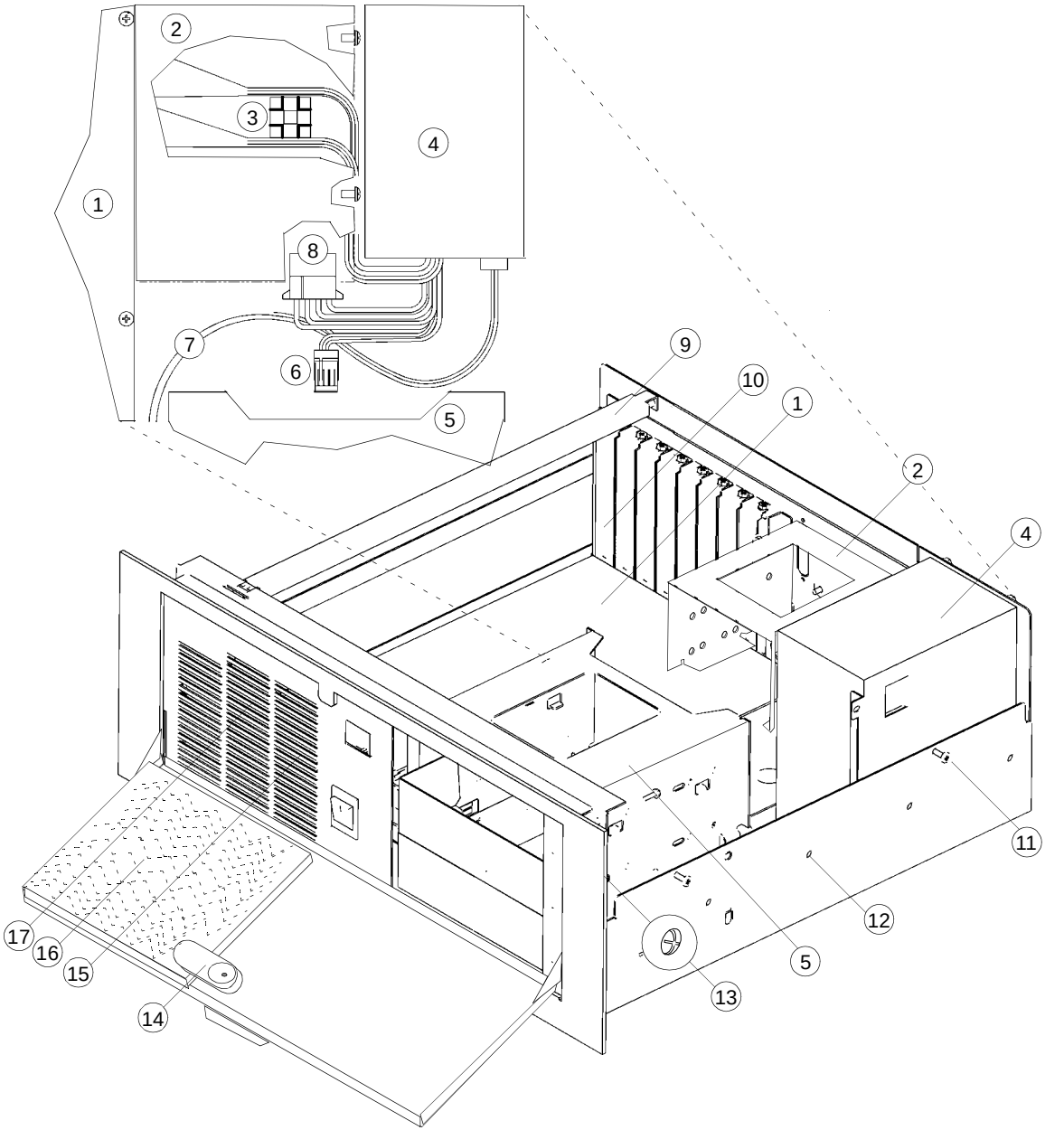
Inside the Chassis

Overview

This section describes the components inside the chassis.

Components Inside the Chassis	
#	Description
1	Mother Board (6-32” 1/4 screws and standoffs)
2	3.5” Media Cage (6-32” 1/4 screws)
3	Mother Board Power Harness
4	Power Supply
5	5.25” Media Cage
6	Power Cables for 5.25” Drives
7	Cable to Power Switch
8	Power Cables for 3.5” Drives
9	Stiffening Bar
10	I/O Slot 1
11	Screw to Secure Top Cover
12	Chassis Section Mounting Hole
13	Screws for Drives in 5.25” Cage (6-32” 1/4)
14	Door Latch
15	Speaker
16	Air Filter
17	Cooling Fan

Figure 3 Internal Components



Install Drives

Overview

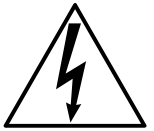
This sections shows the areas of the chassis where drive installations can take place.

Preparation

Follow these instruction to prepare the computer for installations. See the next section to assemble the chassis.

Step	Task
1	Shut down the computer and remove AC power from the chassis. Ground the chassis and work grounded.
2	Remove the Top Cover.

Only qualified, experienced electronics personnel should access the interior of the chassis and handle the equipment.



To avoid damage or injury, always power-off the system and disconnect all power cords from their power source before handling the internal components. to help prevent accidental damage that can be caused by static discharge, always use a grounding wrist strap or other static-dissipating device when accessing the interior of the chassis and handling the equipment.

Install 5.25" Media Drives

To install 5.25" media drives, follow these instructions.

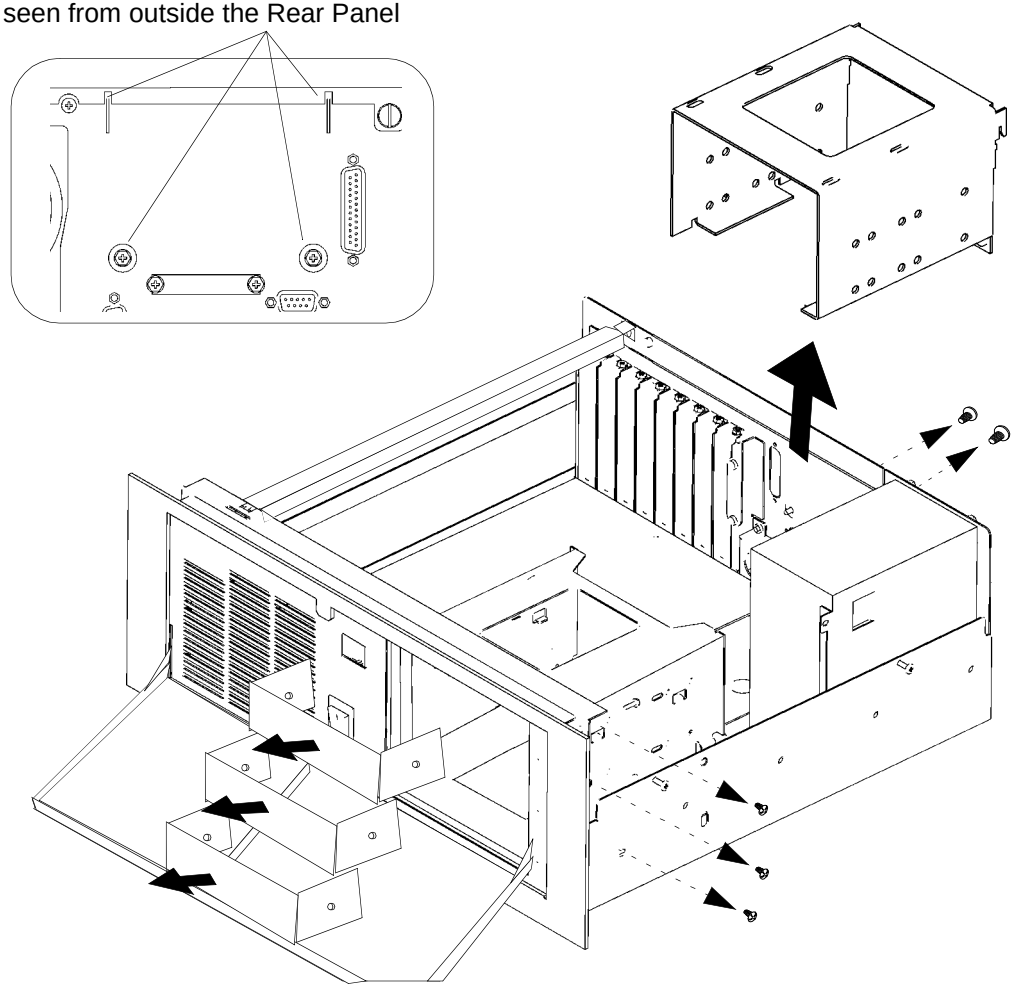
Step	Task
1	Remove the two (2) screws and pull the blank panel from the cage.
2	Install the 5.25" drive in the bay and connect cables to the drive.

Install 3.5" Hard Drives

To install 3.5" hard drives, follow these instructions.

Step	Task
1	Remove the two screws securing the 3.5" Cage, then remove the cage.
2	Install 3.5" hard drives in the 3.5" Media Cage.
3	Replace and secure the 3.5" Cage in the chassis.

Figure 4 Install Drives in the Chassis



To avoid damage or injury, always power-off the system and disconnect all power cords from their power source before handling the internal components. to help prevent accidental damage that can be caused by static discharge, always use a grounding wrist strap or other static-dissipating device when accessing the interior of the chassis and handling the equipment.

Install Boards

Overview

This section describes installing boards onto the Mother Board. Ensure that the preparations steps in the previous section have been completed before installing boards.

Install Boards

To install boards in the Mother Board, follow these instructions.

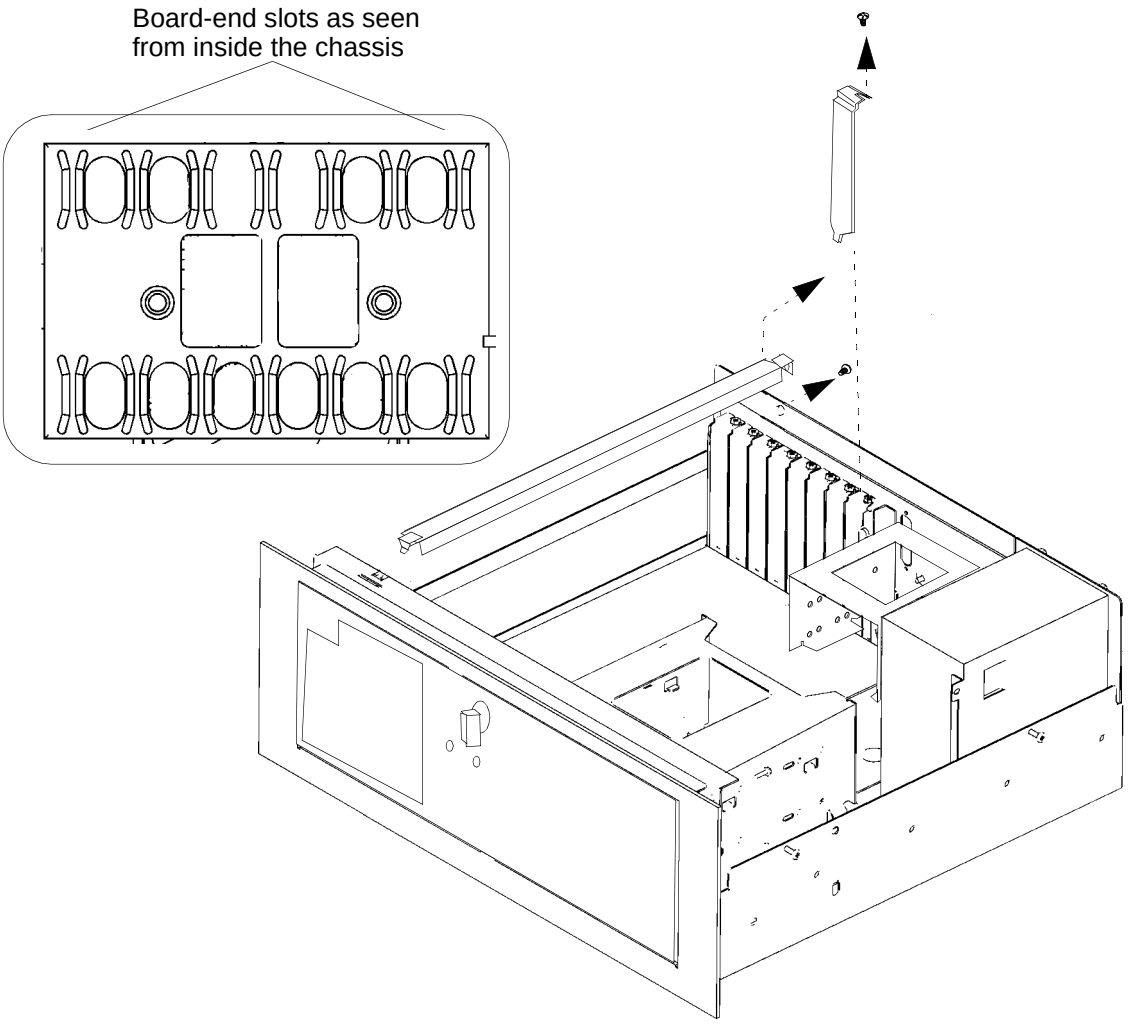
Step	Task
1	If need, remove the Stiffening Bar.
2	Remove the I/O blank slot.
3	Refer to the documentation accompanying the board for any settings required before installation.
4	Install the board by sliding the I/O panel into the open I/O slot and inserting the other end of the board into the a board-end slots.
5	Secure the I/O panel to the rear panel with the screw.
6	Refer to the user documentation accompanying the board for connection and further setup information.
7	Install the Stiffening Bar if removed.

Assemble the Chassis

All the above installations require this last instruction.

Step	Task
1	Install the Top Cover.
2	Close and latch the Front Door.

Figure 5 Install Boards



To avoid damage or injury, always power-off the system and disconnect all power cords from their power source before handling the internal components. to help prevent accidental damage that can be caused by static discharge, always use a grounding wrist strap or other static-dissipating device when accessing the interior of the chassis and handling the equipment.

Start-Up

Overview

This section describes start-up

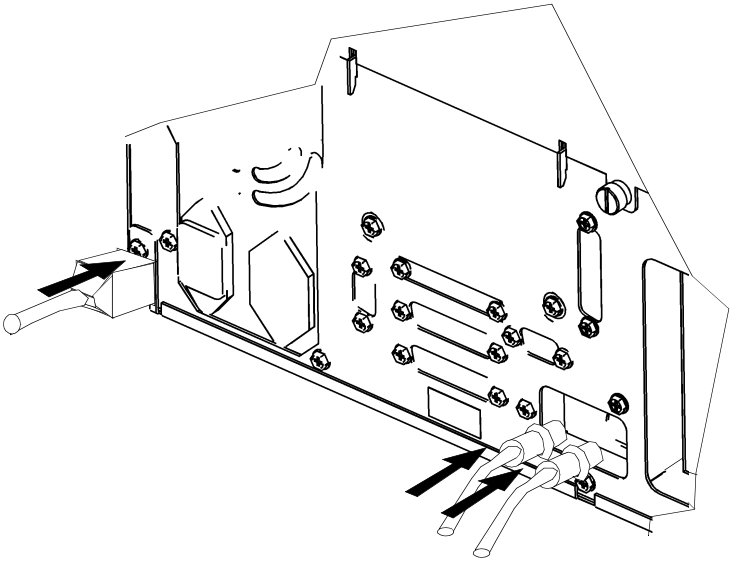
Start-Up

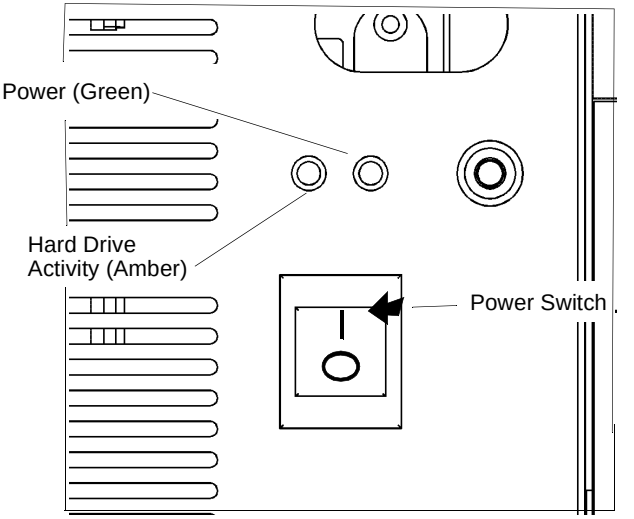
Follow the instructions below to start-up the computer.

Step	Task
1	Ensure that devices and essential components are installed. Then, connect the keyboard, mouse and monitor cables as shown below. Connect any other external devices to the chassis ports.
2	Connect the AC power cable to the chassis as shown below.
3	Fold down the door, then set the power switch to **ON** “I”. On the front panel, the green power LED and amber Hard Drive Activity LED light. The cooling fan and power supply exhaust fan spin. The hard drive(s) spins. The monitor responds to P.O.S.T. and the initial system power-up.
4	If the start-up does not perform the events described in the previous step, check all the cable connection, then if needed, check the seating of boards and device cables inside the chassis. Contact Texas Micro Inc. for assistance.

.

Figure 6 Start-Up





NOTES

2 Technical Data

This chapter describes these topics:

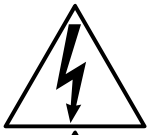
- Maintenance
- Cleaning the air filter
- Chassis specifications

Maintenance

Overview

This section describes precautions to take in working inside the chassis.and replacing the fan filter.

Only qualified, experienced electronics personnel should access the interior of the chassis and handle the equipment.



To avoid damage or injury, always power-off the system and disconnect all power cords from their power source before handling the internal components. to help prevent accidental damage that can be caused by static discharge, always use a grounding wrist strap or other static-dissipating device when accessing the interior of the chassis and handling the equipment.

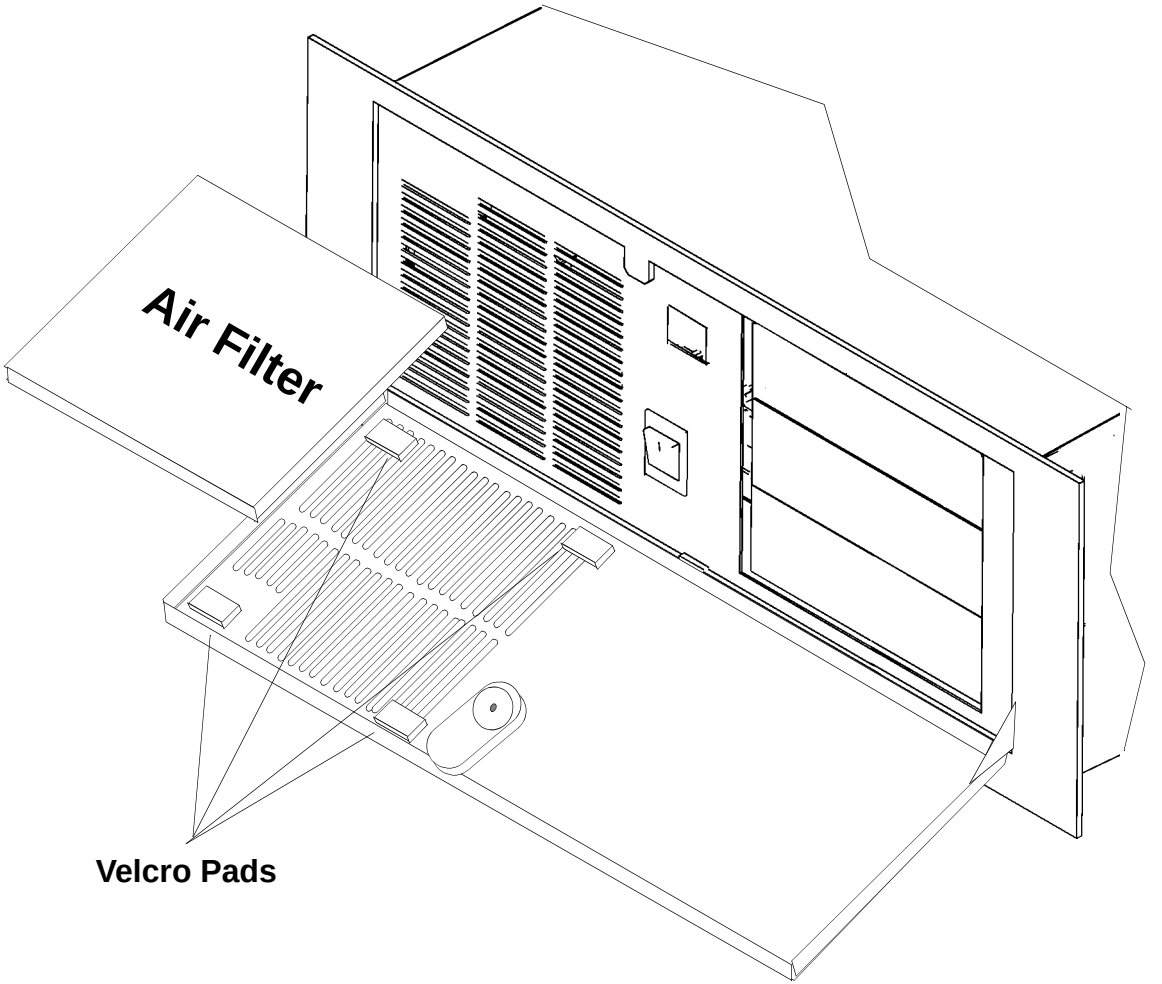
No moisture or condensation may come in contact with the chassis's electronic components or cables and connectors. Damage to the static-sensitive components could occur.

Clean the Air Filter

The filter can be safely replaced without powering down the computer.

Step	Task
1	Open the Fold-Down Door.
2	Peel the soiled air filter from the Velcro pads.
3	Wash the soiled filter with a mild soap and water solution. Allow the filter to air dry.
3	Press the clean filter into the Velcro pads.
4	Close the Fold-Down Door.

Figure 7 Replace the Air Filter



Specifications

Overview

This section describes the chassis specifications.

System

The following specifications reflect the characteristics of the VP(B/R)-MB chassis.

Name	Description
Dimensions	6.96” H (176.8 mm), 19” W (482.6 mm), 16.33” D (414.8 mm)
Construction	Pressed 0.048 CRC steel
Weight	34 pounds typical (15.4 Kg)
Power Requirements	250-Watt, auto-switching +5 VDC @ 25 Amperes +12 VDC @ 10 Amperes -5 VDC @ 0.5 Amperes -12 VDC @ 0.5 Amperes
Input Voltage	Auto-switching international power supply 90 — 264 VAC at 47 — 63 Hz
Thermal Cooling	One 27 cubic feet per minute (cfm) power supply fan One 32 cfm cooling fan
Disk Storage	Three (3) 5.25 inch one-half height disk equivalents (Small Computer System Interface (SCSI) or Integrated Device Electronics (IDE), Fold-Down Door accessible Two (2) internal disk drive bays (one-half height and one-inch)
Keyboard	Standard 5-pin (Duetch Industrie Norm (DIN) connector on Rear Panel

Figure 8 VP(B/R)-MB Chassis

Rackmount chassis shown in illustration.

Environment

The following specifications reflect the environmental tolerances of the VP(B/R)-MB.

Name	Description
Temperature	Operating: 32°F — 113°F (0°C — 45°C)
	Non-Operating: -40°F — 158°F (-20°C — 70°C)
Humidity	Operating: 10% — 90% (non-condensing)
	Non-Operating: 5% — 95% (non-condensing)
Shock	Operating: 1 g @ 11 milliseconds (ms) duration
	Non-Operating: 10 g @ 11 milliseconds (ms) duration
Vibration	Operating: 0.5 g @ 5 - 200Hz
	Non-Operating: 2 g @ 5 - 200Hz
Altitude	Operating: 0 — 15,000 feet (ft.) (4,572 meters)
	Non-Operating: 0 — 50,000 feet (ft.) (15,240 meters)

NOTES: